

REMARKS

Claims 12-23 and 25-30 are pending in the application.

Claim Rejections - 35 U.S.C. § 103

(a) Claims 12-23, 25-26, and 28-29 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Ghercioiu et al. (US 2004/0010734) in view of Hasako et al. (US 2003/0093715), Keele et al. (US 2005/0086695), and Hickman et al. (US 7,100,069). This rejection is respectfully traversed.

Applicants respectfully disagree with the Examiner's application of the Ghercioiu and Hasako references over independent claims 1 and 23 at least for the following reasons.

With regard to the Ghercioiu reference, the Examiner alleges, in page 3 of the Office Action, that:

- (1) The reference discloses the claimed "video signal input means for receiving an input of video data generated based on a picked-up image of said control target equipment for each of the instructions" in Fig 3;
- (2) The reference discloses the claimed "determining means for determining abnormality of the control target equipment" in paragraphs [0233], [0240], and [0242]; and
- (3) The reference discloses the claimed "detection means for detecting, upon determination of the abnormality by the determining means, designation of a symbol associated with a signal indicating the determined abnormality of the control target equipment among the plurality of symbols displayed in said first display region" in paragraphs [0082], [0240], and [0242].

Applicants note, however, that Fig. 3 shows a block diagram of the computer system 102 of Figs. 1A, 1B, and 2 (see paragraph [0028] of Ghercioiu). The description in paragraphs

[0233], [0240], and [0242] are directed to the flowchart of Fig. 12, which shows the method of creating, deploying, and executing a graphical program on an embedded device (see paragraph [0039]). The description in paragraph [0082] is directed to the computer system 102 shown in Fig. 3. In contrast, the description in paragraphs [0240] and [0242] are directed to the embedded device 110, which is connected to the computer system 102.

In view of this, Applicants submit that the Examiner is attempting to conveniently combine elements directed to the computer system 102 (~~arguably corresponds to the “programmable display apparatus” of the present invention~~) and the embedded device 110 (~~arguably corresponds to the “control target equipment”~~) to reject a claim directed to the “programmable display apparatus” of the present invention.

If the claimed programmable display apparatus is compared with the computer system 102 of the Ghercioiu reference, and the control target equipment of the present application is compared to the target embedded device of the Ghercioiu reference, it is apparent that the claimed programmable display apparatus is not the computer system 102 of the Ghercioiu reference, as discussed in the previous Reply and during the interview.

Applicants believe that comparison between the claimed programmable display apparatus and the target embedded device of the Ghercioiu reference is improper at least for the following reasons.

(1) In the Office Action, the Examiner indicates that “video signal input means for receiving an input of video data generated based on a picked-up image of said control target equipment for each of the instructions” is disclosed in “Ghercioiu, Fig. 3, Video; pg. 7, par. 80,” and that “video data storing means for storing said video data” is disclosed in “Ghercioiu, Fig. 3, Video, Main Memory; pg. 7, par. 80.” Applicants note, however, that Fig. 3 of the Ghercioiu

reference illustrates the computer system 102. Elements of Fig. 3 are not included in the embedded device 110. In view of the previous argument that the claimed programmable display apparatus is not the computer system 102 of the Ghericiou reference, as discussed in the previous Reply and during the interview, the Examiner's arguments are not proper.

(2) According to paragraph [0061] of the Ghericiou reference, data from a camera is converted to GIF, JPE, or MPEG format, and transmitted to the host computer. The Ghericiou reference does not indicate that the target embedded device 110 displays image based on the data from the camera. Rather, the computer system 102 displays the image. In contrast, in the present invention, the claimed programmable display apparatus displays the image. ~~As discussed in the previous Reply and during the interview, it is apparent that the claimed programmable display apparatus is not the computer 102 of the Ghericiou reference.~~

(3) Further, Applicants note that the technical feature described in ~~paragraphs [0004], [0007], or [0014]~~ of the Ghericiou reference does not affect the patentability of the present invention. Although it appears that the target embedded device 110 of paragraph [0061] of the Ghericiou reference may be referred to in comparison with the claimed invention, the cited prior art does not disclose the claimed ladder program. Yet further, the Office Action indicates that Ghericiou teaches a programmable display apparatus (Ghericiou, pg. 1, par. 10), display means for displaying an image (Ghericiou, pg. 2, par. 12); and first display control means, based on the symbol data corresponding to the instructions executed by said control target test equipment for causing the symbols corresponding to said executed instructions to be displayed in a first display region in said display means (Ghericiou, pg. 1, par. 7). Applicants note that paragraphs [0007], [0010], and [0012] disclose techniques merely related to the invention recited in the Ghericiou

reference. Therefore, one skilled in the art would not have been motivated to apply the related art to the Ghercioiu reference to conceive the claimed invention.

In view of this, Applicants submit that it is improper to combine elements in the manner, as alleged by the Examiner, because the Ghercioiu reference fails to disclose that the computer system 102 has all of the foregoing elements, and also that one skilled in the art would not be motivated to combine the claimed “programmable display apparatus” that includes the “video signal input means,” the “determining means,” and the “detection means,” as recited in claim 12.

Further, the Examiner acknowledges that the Ghercioiu reference does not disclose or suggest the “relation means for relating the symbol data corresponding to the instructions executed by said control target equipment to the video data stored in said video data storing means,” as recited in claim 12. Therefore, the Examiner relies on Figs. 12 and 13(a) and paragraphs [0015]-[0017], [0376], and [0377] of the Hasako reference and alleges that it discloses this element.

Applicants submit that Hasako states in paragraphs [0376] and [0377]:

[0376] As shown in FIG. 13(a), this causes the test video data superimposing the inspection result image data to be displayed on the display unit 31 of the display device 3.
[0377] More specifically, a test image A is displayed on a main screen 310 of the display unit 31, while an inspection result image B is displayed on a sub screen 311. (*emphasis added*)

Although the Hasako reference indicates that the inspection result image data is “superimposed” on the test video data, “superimposing” disclosed by Hasako and the claimed “relating the symbol data” are totally different. ~~In view of this,~~ Further, Applicants note that the Hasako reference shows in Fig. 12 and describes in paragraphs [0356]-[0371] that images A and B are not related with each other. In view of this, Applicants submit that Hasako fails to disclose

or suggest “relating the symbol data corresponding to the instructions executed by said control target equipment to the video data stored in said video data storing means,” as recited in claim 12.

Further, although the Examiner relies on Fig. 13(a) of the Hasako reference in page 4 of the Office Action, Applicants submit that Fig. 13(a) does not associate two data. In other words, two images in Fig. 13(a) are not related with one another. In contrast, in the claimed invention, the symbol data and the video data are “related” with each other. Such a feature is neither disclosed nor suggested by the Hasako reference.

The Keele reference has been relied upon to show that displaying the moving image of at least one of a time period from a predetermined time previous to said detection and a time period to a predetermined time after said detection is known in the art.

Further, the Hickman reference has been relied upon to show a programmable display apparatus that monitors and displays the state of a control target apparatus without providing any program from the programmable display apparatus to the control target apparatus is known in the art.

Applicants also note that the Hickman reference discloses a technique for controlling a host device from a client device. The client device displays image data of a user interface of the host device, and when a setting portion is clicked on the screen, a signal is sent from the client device to the host device. The host device operates based on the signal.

The claimed programmable display apparatus of the present application appears to be compared to the client device. A programmable logic controller or a target device appears to correspond to the host device. When compared, the Hickman reference indicates that the host device stores data for the user interface. In contrast, according to the claimed invention of the

present application, the data is stored in the programmable display apparatus, which appears to correspond to the client device.

Applicants respectfully submit that, as can be seen from Figs. 1A, 1B or 2, the Ghercioiu reference merely discloses a system including the computer systems 102 and the target embedded device 110. Since the Ghercioiu reference is not directed to a programmable display apparatus, In view of this, Applicants believe that one skilled in the art would not have been motivated to combine the feature of Ghercioiu with other cited references. Therefore, Applicants submit that the Examiner's application of the Ghercioiu is improper and thus the rejection should be withdrawn.

Further, even assuming that Ghercioiu, Hasako, Keele, and Hickman can be combined, which Applicants do not admit, Ghercioiu in view of Hasako, Keele, and Hickman fails to disclose or suggest the "video signal input means," the "determining means," the "detection means," and the relation means," as recited in claim 12.

Claims 13-22 and 25-26, variously dependent on claim 12, are allowable at least for their dependency on claim 12.

Independent claim 23 is also allowable at least for the similar reasons as stated in the foregoing with regard to claim 12.

Further, claims 28 and 29, variously dependent on claim 23, are allowable at least for their dependency on claim 23.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(b) Claims 27 and 30 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Ghercioiu in view of Hasako, Keele, and Hickman, and further in view of Applicants' Admitted Prior Art (AAPA). This rejection is respectfully traversed.

Claim 27, indirectly dependent on claim 12, is allowable at least for its dependency on claim 12.

Further, claim 30, indirectly dependent on claim 23, is allowable at least for its dependency on claim 23.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

Conclusion

Accordingly, in view of the above amendments and remarks, reconsideration of the rejections and allowance of the pending claims in the present application are respectfully requested.


The Examiner is respectfully requested to enter this Amendment After Final in that it raises no new issues. Alternatively, the Examiner is respectfully requested to enter this Amendment After Final in that it places the application in better form for Appeal.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Maki Hatsumi, Registration No. 40417, at the telephone number of the undersigned below to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Director is hereby authorized in this, concurrent, and future replies to charge any fees required during the pendency of the above-identified application or credit any overpayment to Deposit Account No. 02-2448.

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Respectfully submitted,

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